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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,024	11/16/2000	Masato Mitsuhashi	108066-00018	3168

7590

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EXAMINER
KING, JUSTIN

ART UNIT	PAPER NUMBER
2111	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/713,024	MITSUHASHI ET AL.	
	Examiner	Art Unit	
	Justin I. King	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 and 6 is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "said first clock" in the newly amended portion. There is insufficient antecedent basis for this limitation in the claim. Applicant may have meant "said fast clock".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Parmenter et al. (U.S. Patent No. 5,679,353).

Referring to claim 5: Parmenter discloses receiving a faster PLL clock signal (figure 2, structure 19 receives 2X_CLK2), receiving a switch signal for switching an output (figure 2, SR1 issues the controls of the selection), inhibiting outputting clock signal (figure 2, structures 19 and

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21 under controls of the SR1), and outputting the PLL clock signal according to the frequency differences (the outputs of 1X_CLK2 and 2X_CLK2). As Applicant pointed out, Parmenter discloses the waiting (Remark, page 10, 2nd paragraph), which is the claimed counting.

Parmenter discloses that the clock multiplexer switch waits until the next clock phase boundary to change the clock mode (column 2, lines 43-45). Parmenter's waiting until the next clock phase boundary is the claimed counting according to the frequency difference between the back clock and the PLL clock. Parmenter's waiting until the next clock phase boundary is for the difference between the frequency differences. Hence, claim is anticipated by the Parmenter.

Referring to claim 8: Parmenter discloses a PLL circuit (figure 2, structure 15) that generates a fast clock (figure 2, node 2X_CLK2) whose frequency is more than twice as much as a frequency of the basic signal (figure 2, node 17). Parmenter further discloses multiplexers and their associated control means (figure 2, structures 19, 21, and their control means structure SR1), which are equivalent to the claimed inhibiting circuit that inhibits said fast clock by a time (figure 2, the logic circuit node 27, column 2, lines 11-19) when said basic clock disappears in said output in the case of switching said output from said basic clock to the fast clock, or a term which depends on the difference between said frequency of the basic clock and the frequency of the fast clock in the case of switching. As Applicant pointed out, Parmenter discloses multiplexers 19 and 21 switch between the basic clock and faster clock, and the Parmenter shows the locked condition signal PLL LOCK for controlling the multiplexers (Remark, page 10, 2nd paragraph). Therefore, Parmenter's combined structure of structure 15, 21, and SR1 is equivalent to the claimed first circuit, and Parmenter's combined structure of 15, 19, and SR1 is equivalent to the claimed second circuit. Hence, claims are anticipated by the Parmenter.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the Parmenter and Georgiou et al. (U.S. Patent No. 5,533,072) or over the combination of the Parmenter and the admitted prior art.

Referring to claim 7: Parmenter's disclosure is stated above, but Parmenter does not explicitly disclose an embodiment with an interface cable. Parmenter discloses a dynamic clock mode switch for switching clock frequencies. Parmenter enables one to smooth the switching operation by enabling the system continuing operating throughout the frequency transition (column 2, lines 48-52). Parmenter teaches that various modification, as well as other embodiments of the invention, will be apparent to person skilled in the art (column 3, lines 56-64). Georgiou discloses a digital phase alignment aligning the input signals (figure 2). Georgiou discloses the needs for aligning the input data in the proper phase among various subsystems

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(column 1, lines 16-32). Georgiou's coded input signal is equivalent to the claimed interface cable connection/disconnection.

The admitted prior art discloses the different frequencies among 1394 devices (Specification, page 2, 2nd paragraph). Parmenter teaches one to smooth the switching operation by enabling the system continuing operating throughout the frequency transition (column 2, lines 48-52).

Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to combine the teachings of Parmenter and Georgiou, or adapting Parmenter's teaching on the admitted prior art, because Georgiou discloses the needs for aligning the input data and Parmenter discloses how to implement the synchronization, and Parmenter teaches one to smooth the switching operation by enabling the system continuing operating throughout the frequency transition.

Response to Arguments

8. In response to Applicant's argument that the prior art Parmenter's waiting feature is not equivalent to the claimed counting feature because Parmenter does not disclose the relation between the counting period and the frequency difference of the basic clock and PLL clock in claim 5 (Remark, page 7, last paragraph, page 8, 3rd paragraph): Parmenter discloses that the clock multiplexer switch waits until the next clock phase boundary to change the clock mode (column 2, lines 43-45). Parmenter's waiting until the next clock phase boundary is for the difference between the frequency differences. Parmenter teaches one to switching the clock speed at the synchronizing point in order to prevent any glitches and loss-of-state during the transition. Thus, Parmenter's waiting until the next clock phase boundary is the claimed

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counting according to the frequency difference between the back clock and the PLL clock. The claimed limitations as recited are too broad to overcome the prior arts on record.

9. In response to the Applicant's argument that Parmenter fails to disclose "inhibiting circuit that selects said fast clock in response to a connecting of an interface cable..." as recited in claims 7 and 8 (Remark, page 9, last paragraph, page 10, 2nd paragraph): Only amended claim 7 recites the interface cable; claim 8 does not recite any interface cable as argued. The rejection above has been revised accordingly.

10. In response to Applicant's argument that Yokogawa discloses a counter detecting the pulse spacing, which is distinguishable from the alleged invention which inhibits the basic clock output (Remark, page 11, 2nd paragraph): The rejection is removed in view of Applicant's argument.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

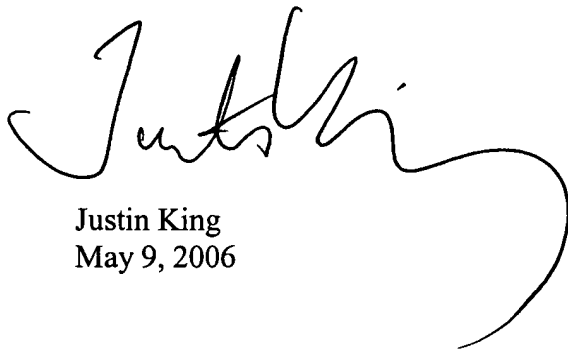
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin I. King whose telephone number is 571-272-3628. The examiner can normally be reached on Monday through Friday, 9:00 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632 or on the central telephone number, (571) 272-2100. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.



Justin King
May 9, 2006



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